

| Exploring Aeronautics | | | |
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| 2000 Mathematics | | | |
| Curriculum Frameworks | | | |
| Massachusetts Mathematics | | | |
| Grades 5-6 | | | |
| Activity/Lesson | State | Standards | |
| Wings(177-208) | MA | MA.5-6.6.M.1 | Apply the concepts of perimeter and area to the solution of problems. Apply formulas where appropriate. |
| Wings(177-208) | MA | MA.5-6.6.M.4 | Find areas of triangles and parallelograms. Recognize that shapes with the same number of sides but different appearances can have the same area. Develop strategies to find the area of more complex shapes. |
| The Resource Center | MA | MA.5-6.6.N.6 | Find and position integers, fractions, mixed numbers, and decimals (both positive and negative) on the number line. |
| The Resource Center | MA | MA.5-6.6.N.7 | Compare and order integers (including negative integers), and positive fractions, mixed numbers, decimals, and percents. |
| The Resource Center | MA | MA.5-6.6.N.10 | Use the number line to model addition and subtraction of integers, with the exception of subtracting negative integers. |
| Science of Flight | MA | MA.5-6.6.M.3 | Solve problems involving proportional relationships and units of measurement, e.g., same system unit conversions, scale models, maps, and speed. |
| Integrating with Aeronautics | MA | MA.5-6.6.N.4 | Demonstrate an understanding of fractions as a ratio of whole numbers, as parts of unit wholes, as parts of a collection, and as locations on the number line. |
| Integrating with Aeronautics | MA | MA.5-6.6.N.6 | Find and position integers, fractions, mixed numbers, and decimals (both positive and negative) on the number line. |
| Integrating with Aeronautics | MA | MA.5-6.6.N.7 | Compare and order integers (including negative integers), and positive fractions, mixed numbers, decimals, and percents. |
| Integrating with Aeronautics | MA | MA.5-6.6.N.10 | Use the number line to model addition and subtraction of integers, with the exception of subtracting negative integers. |
| Integrating with Aeronautics | MA | MA.5-6.6.N.11 | Apply the Order of Operations for expressions involving addition, subtraction, multiplication, and division with grouping symbols (+, -, x, ÷). |
| Scientific Method(124-144) | MA | MA.5-6.6.P.6 | Produce and interpret graphs that represent the relationship between two variables in everyday situations. |
| Scientific Method(124-144) | MA | MA.5-6.6.D.1 | Describe and compare data sets using the concepts of median, mean, mode, maximum and minimum, and range. |
| Scientific Method(124-144) | MA | MA.5-6.6.D.2 | Construct and interpret stem-and-leaf plots, line plots, and circle graphs. |
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| 2000 Mathematics Curriculum Frameworks | | | |
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| Massachusetts Mathematics | | | |
| Grades 7-8 | | | |
| Activity/Lesson | State | Standards | |
| The Resource Center | MA | MA.7-8.8.N.1 | Compare, order, estimate, and translate among integers, fractions and mixed numbers (i.e., rational numbers), decimals, and percents. |
| Integrating with Aeronautics | MA | MA.7-8.8.N.1 | Compare, order, estimate, and translate among integers, fractions and mixed numbers (i.e., rational numbers), decimals, and percents. |
| Integrating with Aeronautics | MA | MA.7-8.8.N.3 | Use ratios and proportions in the solution of problems, in particular, problems involving unit rates, scale factors, and rate of change. |
| Integrating with Aeronautics | MA | MA.7-8.8.N.10 | Estimate and compute with fractions (including simplification of fractions), integers, decimals, and percents (including those greater than 100 and less than 1). |
| Integrating with Aeronautics | MA | MA.7-8.8.N.11 | Determine when an estimate rather than an exact answer is appropriate and apply in problem situations. |
| Integrating with Aeronautics | MA | MA.7-8.8.P.2 | Evaluate simple algebraic expressions for given variable values, e.g., $3a^2 - b$ for $a = 3$ and $b = 7$. |
| Scientific Method(124-144) | MA | MA.7-8.8.D.1 | Describe the characteristics and limitations of a data sample. Identify different ways of selecting a sample, e.g., convenience sampling, responses to a survey, random sampling. |
| Scientific Method(124-144) | MA | MA.7-8.8.D.2 | Select, create, interpret, and utilize various tabular and graphical representations of data, e.g., circle graphs, Venn diagrams, scatterplots, stem-and-leaf plots, box-and-whisker plots, histograms, tables, and charts. Differentiate between continuous and discrete data and ways to represent them. |
| Scientific Method(124-144) | MA | MA.7-8.8.D.3 | Find, describe, and interpret appropriate measures of central tendency (mean, median, and mode) and spread (range) that represent a set of data. Use these notions to compare different sets of data. |